

by Marty Jakle and
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Arizona Tribal Partnerships for Wildlife

Arizona's 23 Native American tribes own 20 million acres (8 million hectares), or about 28 percent of the state. Most of these holdings are relatively undeveloped, making tribes an important focus of the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program in Arizona.

The Partners program provides financial and technical support to private landowners who want to improve fish and wildlife habitat on their land. To date, we have worked with the Hualapai, Hopi, Tohono O'odham, Navajo, White Mountain and San Carlos Apache, Zuni, and Colorado River Indian Tribes to restore important habitat. The projects have run a wide gamut, from installing barriers to protect Apache trout (*Oncorhynchus apache*) from nonnative fishes, to restoring wetlands, to developing native tree nurseries for use in replanting riparian habitats.

Tohono O'odham Nation

In 1999, the Partners program joined the Tohono O'odham Nation in a unique

project to protect an endangered plant. The rare Nichol's Turk's head cactus (*Echinocactus horizonthalonius* var. *nicholii*) is known to grow in small patches in only three desert mountain "islands" within the Sonoran Desert of southern Arizona and one in Sonora, Mexico. One of these sites is in the Schuk Toak District of the Tohono O'odham Nation in southern Arizona.

During a survey for the cactus in 1997, biologists found evidence that javelina (*Pecari tajacu*) or desert bighorn sheep (*Ovis canadensis* var. *mexicanus*), or both, were eating the Nichol's Turk's head cactus in parts of its range. To protect the cactus, tribal members erected exclosures in rugged terrain on two mountain peaks on Tohono

Apache trout
USFWS photo





(Counter-clockwise from upper left) Javelinas (*Tayassu tajacu*) are known to eat some species of cacti, including the Nichol's Turk's head.

Photo by Tom Stehn/USFWS

Jose Enriquez of the Tohono O'odham Nation packed material high into the cactus' mountain habitat to fence out javelinas.

Photo by Bob Schmalzel

The Nichol's Turk's head cactus in bloom

Photo by Bob Schmalzel

Schuk Toak District Chairman Joe Juan, cactus expert and private consultant Bob Schmalzel, Schuk Toak District Vice Chairman Ron Widener, and Jose Enriquez stand in front of a Partners for Fish and Wildlife sign on the fence around a cactus patch.

Photo by Marty Jakle

O'odham Nation lands. The project required transporting 39-inch (1-meter) wide fencing and 6-foot (2-m) metal T-posts to remote sites by horseback. To follow up on this project, tribal biologists are collecting information about conditions such as droughts that may lead wildlife to consume the cactus.

Pueblo of Zuni

Along the Little Colorado River, about 250 miles (400 kilometers) to the north, the Pueblo of Zuni is restoring an 80-acre (32-ha) site where Zuni spirits and ancestors reside. The Partners program is contributing to the use of earth-moving equipment and water-control structures for restoring riparian and wetland habitats along a river dried by decades of groundwater pumping, reservoir construction, and unrestricted livestock grazing. In the future, when Pueblo leaders make their quadrennial religious pilgrimage to the area, they'll find the valley once again shared by neotropical migratory birds, including waterfowl and shorebirds, rails, yellow-billed cuckoos (*Coccyzus americanus*), and the endangered southwestern willow flycatcher (*Empidonax traillii extimus*).

Native American approaches to the management of natural resources can be quite different from the scientific and regulatory approaches used by other land managers. However, through partnerships with tribes, the cultural and biodiversity values of the land can be protected and restored.

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The yellow-billed cuckoo and other neotropical migratory birds should benefit from restored riparian habitat on the Pueblo at Zuni.

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